UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/023,960	12/17/2001	Shahid Mujtaba	10013648 -1	6641

7590 12/12/2005

HEWLETT-PACKARD COMPANY
Intellectual Property Administration
P.O. Box 272400
Fort Collins, CO 80527-2400

EXAMINER	
DESHPANDE, KALYAN K	
ART UNIT	**PAPER NUMBER**
3623	

DATE MAILED: 12/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/023,960	MUJTABA ET AL.	
	Examiner	Art Unit	
	Kalyan K. Deshpande	3623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 December 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-35* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-35* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *26 February 2002* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Introduction

1. The following is a non-final office action in response to the communications received on December 17, 2001. Claims 1-35 are now pending in this application.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-2 and 4-35 are rejected under 35 U.S.C. 102(b) as being anticipated by Huang et al. (U.S Patent No. 6151582).

As per claim 1, Huang teaches:

A method for defining an optimal integrated action plan for procurement, manufacturing, and marketing comprising:

a) accessing materials planning parameters (see column 13 lines 9-67 - column 14 lines 1-19, column 19 lines 32-67- column 99 lines 1-4, and column 107 lines 36-67 – column 112 lines 1-20; where the aggregate production planning system accesses material planning parameters in the system);

b) accessing pricing parameters (see column 19 lines 63-67 – column 24 lines 1-48 and column 39 lines 60-67 – column 90 lines 1-53; where the forecasting module incorporates market data, including inventory costs, raw material costs, delivery costs, product sales price, and promotional discounts in to optimizing the decision management system); and

c) evaluating said materials planning parameters and said pricing parameters in conjunction to define said integrated action plan (see column 27 lines 1-67 – column 99 lines 1-4; where the system evaluates market data, sales data, materials data, inventory data, and production data to determine a plan).

As per claim 2, Huang teaches:

The method as recited in claim 1, wherein said integrated action plan comprises:

a build plan, a procurement plan, and a sales and pricing plan (column 13 lines 9-67 – column 14 lines 1-19, column 19 lines 32-67 – column 99 lines 1-4, and column 107 lines 36-67 – column 112 lines 1-20; where the system generates a master production plan (build plan), a materials requirement plan, and a sales and pricing plan. The materials requirement plan incorporates the need to procure critical components from vendors. The system reconciles forecast and profit data to determine a sales plan. The system also determines a pricing plan based on the input from all of the modules.).

As per claim 4, Huang teaches:

The method as recited in claim 2, wherein said integrated action plan is a short life cycle integrated action plan (see column 27 lines 1-67 – column 28 lines 1-24; where inventory planning is accomplished by setting inventory policy parameters for specific products or product groups, thereby accounting for short life cycles.).

As per claim 5, Huang teaches:

The method as recited in claim 1, wherein said materials planning parameters comprise:

bill of material, and inventory (see column 13 lines 9-67 – column 14 lines 1-4, column 27 lines 1-67 – column 28 lines 1-24, and figure 67; where the materials planning uses a bill of materials and manages an inventory.).

As per claim 6, Huang teaches:

The method as recited in claim 1, wherein said pricing parameters comprise:

a parameterized demand curve formed using a pricing information generating technique (see column 12 lines 51-67 – column 13 lines 1-7, column 18 lines 7-67 – column 25 lines 1-5, and figures 11, 12, 14, 56, and 57; where the demand management uses sales forecasts and marketing data to create demand parameters, including forecasted sales volumes, costs, and finished product prices. Parameterized demand curve in the present invention is defined as the evaluation of sales

information to create a distinct marketing goal (see specification p. 10 lines 6-14).).

As per claim 7, Huang teaches:

The method as recited in claim 1, wherein said evaluating said materials planning parameters and said pricing parameters is done via an optimization engine employing a mathematical programming model and technique (see column 61 lines 27-67 – column 99 lines 1-4; where materials planning and pricing parameters is done via optimization using linear programming.).

As per claim 8, Huang teaches:

The method as recited in claim 7, wherein the goal of said optimization engine is maximization of product gross profit (see column 61 lines 27-67 – column 99 lines 1-4; where the system optimizes sales and production costs (revenue and costs) to ultimately determine product gross profit.).

As per claim 9, Huang teaches:

The method as recited in claim 7, wherein the goal of said optimization engine is optimizing the trade-off between product gross profit maximization and inventory write-off cost minimization (see column 61 lines 27-67 – column 99 lines 1-4; where the system optimizes sales and production costs (revenue and costs) to ultimately determine product net profit.).

As per claim 10, Huang teaches:

The method as recited in claim 7, wherein business rules are applied to said optimization engine (see column 61 lines 27-67 – column 99 lines 1-4;

where constraints are used in the linear programming. Business rules are defined as constraints (see specification p. 13 lines 23-27).).

As per claim 11, Huang teaches:

The method as recited in claim 10, wherein said business rules comprise:

objectives, budgets, parts procurement limits, and build capacity (see column 13 lines 9-67 – column 14 lines 1-4 and column 19 lines 63-67 – column 24 lines 1-48; where budgets, key parts procurement, production capacity, and other costs are constraints in the linear programming optimization of the production plan. Objectives are business rules, where business rules are constraints (see specification p. 13 lines 23-27).).

As per claim 12, Huang teaches:

A computer system comprising:

a bus (see column 102 lines 30-67 – column 103 lines 1-35; where the server requires maximum speed, storage space, memory and network connectivity. These elements are connected by a bus.);

a memory unit coupled to said bus (see column 102 lines 30-67 – column 103 lines 1-35; where the server requires maximum speed, storage space, memory and network connectivity. These elements are connected by a bus.); and

a processor coupled to said bus, said processor for executing a method for defining an optimal integrated action plan for procurement, manufacturing, and marketing comprising (see column 102 lines 30-67 – column 103 lines 1-35; where the server requires maximum speed,

storage space, memory and network connectivity. These elements are connected by a bus.):

a) accessing materials planning parameters, said materials planning parameters comprising: bill of material, parts cost, capacity consumption, and inventory (see column 13 lines 9-67 – column 14 lines 1-4, column 27 lines 1-67 – column 28 lines 1-24, and figure 67; where the material planning parameters accessed includes the bill or materials, material costs, production capacity, key parts procurement and inventory, and inventory managing policies.);

b) accessing pricing parameters, said pricing parameters comprising: a parameterized demand curve, said parameterized demand curve formed using a pricing information generating technique, said pricing information generating technique obtained from the family of pricing information generating techniques comprising: auction price analyzer, consumer survey, panel of judges, and statistical regression based models (see column 16 lines 3-67 – column 24 lines 1-48 and column 39 lines 60-67 – column 90 lines 1-53; where pricing parameters are accessed and demand parameters are determined from sales and marketing data. Pricing information is determined from statistical regression based models.) and

c) evaluating said materials planning parameters and said pricing parameters in conjunction via an optimization engine, wherein said optimization engine employs a mathematical programming model and

technique (see column 61 lines 27-67 – column 99 lines 1-4; where materials planning and pricing parameters is done via optimization using linear programming.).

As per claim 13, Huang teaches:

The computer system of claim 12, wherein the goal of said optimization engine comprises:

maximizing product gross profit, or optimizing the trade-off between product gross profit maximization and inventory write-off cost minimization (see column 61 lines 27-67 – column 99 lines 1-4; where the system optimizes sales and production costs (revenue and costs) to ultimately determine product net profit.).

As per claim 14, Huang teaches:

The computer system of claim 13, wherein business rules are applied to said optimization engine (see column 61 lines 27-67 – column 99 lines 1-4; where constraints are used in the linear programming. Business rules are defined as constraints (see specification p. 13 lines 23-27).).

As per claim 15, Huang teaches:

The computer system of claim 14, wherein said business rules comprise:

objectives, budgets, parts procurement limits, and build capacity (see column 13 lines 9-67 – column 14 lines 1-4 and column 19 lines 63-67 – column 24 lines 1-48; where budgets, key parts procurement, production capacity, and other costs are constraints in the linear programming

optimization of the production plan. Objectives are business rules, where business rules are constraints (see specification p. 13 lines 23-27).).

As per claim 16, Huang teaches:

The computer system of claim 15, wherein said objectives comprise:

revenue, write-off, and profit (see column 13 lines 9-67 – column 14 lines 1-4 and column 19 lines 63-67 – column 24 lines 1-48; where budgets, key parts procurement, production capacity, and other costs are constraints in the linear programming optimization of the production plan. Objectives are business rules, where business rules are constraints (see specification p. 13 lines 23-27).).

As per claim 17, Huang teaches:

The computer system of claim 12, wherein said integrated action plan further comprises:

a build plan, a procurement plan, and a sales and pricing plan (column 13 lines 9-67 – column 14 lines 1-19, column 19 lines 32-67 – column 99 lines 1-4, and column 107 lines 36-67 – column 112 lines 1-20; where the system generates a master production plan (build plan), a materials requirement plan, and a sales and pricing plan. The materials requirement plan incorporates the need to procure critical components from vendors. The system reconciles forecast and profit data to determine a sales plan. The system also determines a pricing plan based on the input from all of the modules.).

As per claim 19, Huang teaches:

The computer system of claim 17, wherein said integrated action plan is a short life cycle plan (see column 27 lines 1-67 – column 28 lines 1-24; where inventory planning is accomplished by setting inventory policy parameters for specific products or product groups, thereby accounting for short life cycles.).

As per claim 20, Huang teaches:

The computer system of claim 17, wherein said integrated action plan is further comprised of metrics (see column 19 lines 32-67 – column 99 lines 1-4; where the system accounts for revenue, inventory write-off, profit, and competitor pricing.).

As per claim 21, Huang teaches:

The computer system of claim 20, wherein said metrics comprise:

revenue, write-off, profit, and shadow prices (see column 19 lines 32-67 – column 99 lines 1-4; where the system accounts for revenue, inventory write-off, profit, and competitor pricing. For the purposes of examination, shadow prices are interpreted to mean prices offered by other competitors.).

As per claim 22, Huang teaches:

The computer system of claim 12, wherein said pricing parameters are obtained from a discrete said parameterized demand curve (see column 12 lines 51-67 – column 13 lines 1-7, column 18 lines 7-67 – column 25 lines 1-5, and figures 11, 12, 14, 56, and 57; where the demand management uses sales forecasts and marketing data to create demand parameters, including forecasted sales volumes, costs, and finished product prices. Based on the

linear programming and mixed integer linear programming models, these parameters can be set as variables or actual values can be placed in to the variables, thus making the demand curve discrete or continuous. Different models are proposed for parameters that fluctuate and for those parameters are that are static as well. Parameterized demand curve in the present invention is defined as the evaluation of sales information to create a distinct marketing goal (see specification p. 10 lines 6-14).).

As per claim 23, Huang teaches:

The computer system of claim 12, wherein said pricing parameters are obtained from a continuous said parameterized demand curve (see column 12 lines 51-67 – column 13 lines 1-7, column 18 lines 7-67 – column 25 lines 1-5, and figures 11, 12, 14, 56, and 57; where the demand management uses sales forecasts and marketing data to create demand parameters, including forecasted sales volumes, costs, and finished product prices. Based on the linear programming and mixed integer linear programming models, these parameters can be set as variables or actual values can be placed in to the variables, thus making the demand curve discrete or continuous. Different models are proposed for parameters that fluctuate and for those parameters are that are static as well. Parameterized demand curve in the present invention is defined as the evaluation of sales information to create a distinct marketing goal (see specification p. 10 lines 6-14).).

As per claim 24, Huang teaches:

The computer system of claim 12, wherein said mathematical programming model and technique is obtained from the family of mathematical programming models and techniques comprising:

mixed integer models, linear models, non-linear models, and techniques such as simplex methods, interior point methods, branch and bound (cut), constraint programming, and meta-heuristics (see column 61 lines 27-67 – column 99 lines 1-4; where the optimization is done using linear programming and mixed integer linear programming.).

As per claim 25, Huang teaches:

A computer-usable medium having computer-readable program code embodied therein for causing a computer system to perform a method for defining an optimal integrated action plan for procurement, manufacturing, and marketing comprising:

a) accessing materials planning parameters (see column 13 lines 9-67 - column 14 lines 1-19, column 19 lines 32-67- column 99 lines 1-4, and column 107 lines 36-67 – column 112 lines 1-20; where the aggregate production planning system accesses material planning parameters in the system);

b) accessing pricing parameters (see column 19 lines 63-67 – column 24 lines 1-48 and column 39 lines 60-67 – column 90 lines 1-53; where the forecasting module incorporates market data, including inventory costs, raw material costs, delivery costs, product sales price, and

promotional discounts in to optimizing the decision management system); and

c) evaluating said materials planning parameters and said pricing parameters in conjunction to define said integrated action plan (see column 27 lines 1-67 – column 99 lines 1-4; where the system evaluates market data, sales data, materials data, inventory data, and production data to determine a plan).

As per claim 26, Huang teaches:

The computer-usable medium of claim 25, wherein said integrated action plan comprises:

a build plan, a procurement plan, and a sales and pricing plan (column 13 lines 9-67 – column 14 lines 1-19, column 19 lines 32-67 – column 99 lines 1-4, and column 107 lines 36-67 – column 112 lines 1-20; where the system generates a master production plan (build plan), a materials requirement plan, and a sales and pricing plan. The materials requirement plan incorporates the need to procure critical components from vendors. The system reconciles forecast and profit data to determine a sales plan. The system also determines a pricing plan based on the input from all of the modules.).

As per claim 28, Huang teaches:

The computer-usable medium of claim 26, wherein said integrated action plan is a short life cycle integrated action plan (see column 27 lines 1-67 – column 28 lines 1-24; where inventory planning is accomplished by setting

inventory policy parameters for specific products or product groups, thereby accounting for short life cycles.).

As per claim 29, Huang teaches:

The computer-usable medium of claim 25, wherein said materials planning parameters comprise:

bill of material, and inventory (see column 13 lines 9-67 – column 14 lines 1-4, column 27 lines 1-67 – column 28 lines 1-24, and figure 67; where the materials planning uses a bill of materials and manages an inventory.).

As per claim 30, Huang teaches:

The computer-usable medium of claim 25, wherein said pricing parameters comprise:

a parameterized demand curve formed using a pricing information generating technique (see column 12 lines 51-67 – column 13 lines 1-7, column 18 lines 7-67 – column 25 lines 1-5, and figures 11, 12, 14, 56, and 57; where the demand management uses sales forecasts and marketing data to create demand parameters, including forecasted sales volumes, costs, and finished product prices. Parameterized demand curve in the present invention is defined as the evaluation of sales information to create a distinct marketing goal (see specification p. 10 lines 6-14).).

As per claim 31, Huang teaches:

The computer-usable medium of claim 25, wherein said evaluating said materials planning parameters and said pricing parameters is done via an optimization engine employing a mathematical programming model and technique (see column 61 lines 27-67 – column 99 lines 1-4; where materials planning and pricing parameters is done via optimization using linear programming.).

As per claim 32, Huang teaches:

The computer-usable medium of claim 31, wherein the goal of said optimization engine is maximization of product gross profit (see column 61 lines 27-67 – column 99 lines 1-4; where the system optimizes sales and production costs (revenue and costs) to ultimately determine product gross profit.).

As per claim 33, Huang teaches:

The computer-usable medium of claim 31, wherein the goal of said optimization engine is optimizing the trade-off between product gross profit maximization and inventory write-off cost minimization (see column 61 lines 27-67 – column 99 lines 1-4; where the system optimizes sales and production costs (revenue and costs) to ultimately determine product net profit.).

As per claim 34, Huang teaches:

The computer-usable medium of claim 31, wherein business rules are applied to said optimization engine (see column 61 lines 27-67 – column 99

lines 1-4; where constraints are used in the linear programming. Business rules are defined as constraints (see specification p. 13 lines 23-27).).

As per claim 35, Huang teaches:

The computer-usable medium of claim 34, wherein said business rules comprise:

objectives, budgets, parts procurement limits, and build capacity (see column 13 lines 9-67 – column 14 lines 1-4 and column 19 lines 63-67 – column 24 lines 1-48; where budgets, key parts procurement, production capacity, and other costs are constraints in the linear programming optimization of the production plan. Objectives are business rules, where business rules are constraints (see specification p. 13 lines 23-27).).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claim 3 rejected under 35 U.S.C. 103(a) as being unpatentable over Huang et al. (U.S. Patent No. 6151582).

As per claim 3, Huang teaches:

The method as recited in claim 2, where in said integrated action plan can be adjusted to account for finished product inventory levels by setting inventory polices (see column 27 lines 1-67 – column 28 lines 1-24; where

inventory planning is accomplished by setting inventory policy parameters for specific products or product groups.).

Huang fails to teach:

The method as recited in claim 2, wherein said integrated action plan is an end of product life integrated action plan.

Huang fails to explicitly teach a system that accounts for end of product life situations. The Huang system, however, does teach allowing a user to control the inventory levels of finished products by setting inventory policy parameters. The parameters can be set to a maximum or minimum inventory level. For a discontinued product, a user would set the finished product inventory levels to a minimum. The advantage of being able to account for end of product life situations is that it allows the production plan to eventually stop producing finished products and thereby minimizing finished product inventory on-hand. It would have been obvious, at the time of the invention, for one of ordinary skill in the art to adjust the Huang system's inventory policies to minimum to account for end of product life situations in order to eventually cease production of the product and minimize the finished product inventory level.

As per claim 18, Huang teaches:

The method as recited in claim 2, where in said integrated action plan can be adjusted to account for finished product inventory levels by setting inventory polices (see column 27 lines 1-67 – column 28 lines 1-24; where inventory planning is accomplished by setting inventory policy parameters for specific products or product groups.).

Huang fails to teach:

The computer system of claim 17, wherein said integrated action plan is an end of product life integrated action plan.

Claim 18 recites limitations already addressed by the rejection of claim 3; therefore the same rejection applies to this claim.

As per claim 27, Huang teaches:

The method as recited in claim 2, where in said integrated action plan can be adjusted to account for finished product inventory levels by setting inventory polices (see column 27 lines 1-67 – column 28 lines 1-24; where inventory planning is accomplished by setting inventory policy parameters for specific products or product groups.).

Huang fails to teach:

The computer-usable medium of claim 26, wherein said integrated action plan is an end of product life integrated action plan.

Claim 27 recites limitations already addressed by the rejection of claim 3; therefore the same rejection applies to this claim.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following are pertinent to the current invention, though not relied upon:

Ouimet et al. (U.S. Patent No. 6308162) teaches an optimization method for optimizing gross profits based on items cost and setting product selling prices.

Ettl et al. (U.S. Patent No. 594662) teaches an inventory optimization method that optimizes inventory costs by balancing on-hand inventory and works in progress inventory.

Cargille et al. (U.S. Patent Publication No. 20030050817) teaches a production planning system where the primary constraint is capacity.

Dulaney et al. (U.S. Patent No. 6341269) teaches an inventory management system that also optimizes shelf space.

Salvo et al. (U.S. Patent No. 6341271) teaches an inventory management system that automatically places orders for replenishing inventory supply.

Feng (Feng, Shaw; "Manufacturing Planning and Execution Software Interfaces", *Journal of Manufacturing Systems*, 2000, pp. 1-17) teaches a manufacturing planning system that incorporates process planning and manufacturing execution.

Brandimarte et al. (Brandimarte, Paolo; Rigodanza, Massimo; Roero, Luca; "Conceptual Modeling of an Object-Oriented Scheduling Architecture Based on the Shifting Bottleneck Procedure", *IEE Transactions*, October 2000, pp. 921-929) teaches a material requirement planning systems that model the shop floor more accurately to more accurately develop production schedules.

Kenat et al. (Kenat, John J.; Sridharan, V.; "The Value of Using Scheduling Information in Planning Material Requirements", *Decision Sciences*, Spring 1998, pp. 479-497) teaches the use of computers in manufacturing planning systems.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kalyan K. Deshpande whose telephone number is (571) 272-5880. The examiner can normally be reached on M-F 8am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tariq Hafiz can be reached on (571) 272-6729. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KKD
kkd

TARIQ R. HAFIZ
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600